Below the belt

Approach to chronic pelvic pain

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ABSTRACT

OBJECTIVE To present a practical approach to the symptom complex called chronic pelvic pain (CPP). Chronic pelvic pain is defined as nonmenstrual pain lasting 6 months or more that is severe enough to cause functional disability or require medical or surgical treatment.

SOURCES OF INFORMATION MEDLINE, EMBASE, and the Cochrane Database of Systematic Reviews were searched from January 1996 to December 2004.

MAIN MESSAGE While the source of pain in CPP can be gynecologic, urologic, gastrointestinal, musculoskeletal, or psychoneurologic, 4 conditions account for most CPP: endometriosis, adhesions, interstitial cystitis, and irritable bowel syndrome. More than one source of pain can be found in the same patient. Management involves treating the underlying condition, the pain itself, or both. Nonnarcotic analgesics are first-line therapy for pain relief; hormonal therapies are beneficial if the pain has a cyclical component. A multidisciplinary approach addressing environmental factors and incorporating medical management with physiotherapy, psychotherapy, and dietary modifications works best.

CONCLUSION Although caring for patients with CPP can be challenging and frustrating, family physicians are in an ideal position to manage and coordinate their care.

RÉSUMÉ

OBJECTIF Présenter une façon pratique d'aborder l'ensemble des symptômes correspondant à la douleur pelvienne chronique (DPC). Cette entité se définit comme une douleur non menstruelle durant au moins 6 mois et suffisamment intense pour entraîner une incapacité fonctionnelle, ou nécessiter un traitement médical ou chirurgical.

SOURCES DE L'INFORMATION MEDLINE, EMBASE et *Cochrane Database of Systematic Reviews* ont été consultés entre janvier 1996 et décembre 2004.

PRINCIPAL MESSAGE Quoique la douleur dans la DPC puisse être d'origine gynécologique, urologique, gastro-intestinale, musculo-squelettique ou neuropsychologique, la plupart des cas relèvent des 4 conditions suivantes: endométriose, adhérences, cystite interstitielle et syndrome du côlon irritable. La douleur d'une patiente peut avoir plusieurs causes. Le traitement visera la condition sous-jacente, la douleur ou les deux. Les analgésiques non narcotiques constituent le traitement antidouleur de première intention; les thérapies hormonales sont utiles lorsque la douleur est de type cyclique. Une approche multidisciplinaire qui tient compte des facteurs environnementaux et qui associe au traitement médical la physiothérapie, la psychothérapie et une modification du régime alimentaire est la méthode de choix.

CONCLUSION Même si le traitement des patientes souffrant de DPC peut être ardu et frustrant, le médecin de famille est en position idéale pour gérer et coordonner les soins.

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Managing patients with increasing pain can be challenging. Chronic pelvic pain (CPP) is defined as "nonmenstrual pain of 6 or more months duration that is severe enough to cause functional disability or require medical or surgical treatment."[1] Chronic pelvic pain is not a diagnosis, but a description of a clinical condition. An estimated 4% to 20% of women between the ages of 15 and 50 suffer from CPP.[2,3] The pain can result from a variety of gynecologic, urologic, gastrointestinal, musculoskeletal, and psychoneurologic causes.[4] Conditions that have strong and consistent scientific evidence (level II) of a causal relationship with CPP are listed in **Table 1**.[2] Reviewing lists of causes of CPP can be overwhelming, but several guiding principles can assist physicians in managing patients with CPP.

- Four conditions are most often the cause of CPP: endometriosis, adhesions, interstitial cystitis (IC), and irritable bowel syndrome (IBS).[1]
- Frequently, more than one source of pain can be found in the same patient.[2]
- In managing patients with CPP, physicians can treat the underlying condition, the symptom of pain itself, or both.[1]
- Multidisciplinary approaches to treatment work best.[5]

Using these 4 principles, this article outlines an approach to diagnosis and management of patients with CPP. In the case below, what started out as mostly a problem of mild pain in the left lower quadrant developed into several different medical problems all centred "below the belt." The common thread to all these problems is pain.

Case

A 37-year-old woman presents with a 3-year history of lower abdominal pain. The pain is in the left lower quadrant, waxes and wanes, and is relieved by a bowel movement. Especially when stressed, she has episodes of diarrhea and cramps alternating with no bowel movements for several days. A barium enema done 2 years ago showed no abnormalities. A fibre supplement helped regulate her bowel movements, but she has come to see you now because, during the last 6 months, the pain has been worse. She feels it daily across her lower abdomen and radiating into her back. She has had to miss work because of it. Her periods are regular but heavier and longer than usual, and the pain seems to increase during her periods. Now her bowel movements occur only once a week despite daily psyllium. She is also experiencing frequent urination with a burning sensation.

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Table 1. Conditions that can cause chronic pelvic pain, based on level II evidence

MALIGNANCIES
Bladder
Gynecologic
Colon
GYNECOLOGIC CONDITIONS
Endometriosis
Ovarian retention syndrome (after hysterectomy)
Ovarian remnant syndrome (after oophorectomy)
Pelvic congestion syndrome
Pelvic inflammatory disease
Tuberculous salpingitis
URINARY CONDITIONS
Interstitial cystitis
Radiation cystitis
Urethral syndrome
GASTROINTESTINAL CONDITIONS
Constipation
Inflammatory bowel disease
Irritable bowel syndrome
MUSCULOSKELETAL CONDITIONS
Abdominal wall myofascial pain (trigger points)
Coccygeal or back pain
Faulty or poor posture
Fibromyalgia
Neuralgia of iliohypogastric, ilioinguinal, or genitofemoral nerve pain
Pelvic floor myalgia (levator ani or piriformis syndrome)
Peripartum pelvic pain syndrome
OTHER
Abdominal cutaneous nerve entrapment in surgical scar
Depression
Somatization disorder

Adapted from American College of Obstetricians and Gynecologists.[2]

Sources of information

MEDLINE, EMBASE, and the Cochrane Database of Systematic Reviews were searched from January 1996 to December 2004 using the terms "pelvic pain" and "chronic." Review articles and guidelines were sought. There is very little level I evidence for diagnosis and workup of CPP. The approach in this paper derives mainly from the work of Dr Fred Howard, author of the American College of Obstetricians and Gynecologists' guideline on CPP.[2] Dr Howard's approach was chosen because it tries to simplify a complex problem, because it minimizes expert opinion in favour of level I or II evidence, and because it has been endorsed by the Ontario Guidelines Advisory Committee.

Recognizing the disease pattern

The first step in caring for patients with CPP is to recognize the disease pattern. There can be several symptoms involving more than one system, such as intermittent abdominal pain, altered bowel movements, and menstrual disorders. If the constellation of symptoms does not fit a specific diagnosis and the pain has lasted more than 6 months, approaching the problem as a case of CPP is reasonable. The workup begins with a good history and a thorough physical examination.

It is useful to begin by trying to understand the nature of the pain itself and then trying to find a cause.[3] The nature of the pain can be documented using a pain questionnaire, such as the one available at **http://www.obgyn.net/english/pubs/features/carter/pain_questionnaire.pdf**, and by learning how the pain affects activities of daily living, sexual activity, and personal relationships. It is helpful to document the outcomes of investigations and treatments already tried. Certain questions can help determine the source of the pain. If patients have severe dysmenorrhea (especially if they previously had little pain), deep dyspareunia, low back pain that worsens with menstruation, pain with defecation, and infertility, endometriosis is likely.[6] A history of pelvic surgery, infection, or use of an intrauterine device could indicate adhesions. To look for IBS, physicians can ask questions regarding bowel function based on the Rome II criteria[7] (**Table 2**[7]). For IC, useful questions are listed in **Table 3**.[8]

Many published studies focus on the relationship between CPP and patients' psychological state. While in the past the concept of psychogenic pain (emotional pain manifesting as physical pain) was popular, current theorists think that the origins of pain are multifactorial and that "somatic, social and psychological influences" act together to create the syndrome.[9] Previous sexual or physical abuse, depression, anxiety, marital discord, substance abuse, or sexual dysfunction were found in 60% of patients with CPP.[10] **Table 4**[11-13] lists tips on how to inquire about various types of abuse and depression. An overall symptom checklist is available at **www.obgyn.net/english/pubs/features/carter/symptoms_checklist.pdf**.

Physical examination must be done gently because, once patients experience pain, further examination is difficult. When conducting a pelvic examination, begin by using only a moistened cotton swab to discover point tenderness that could indicate vulvar vestibulitis or a neuroma.[1] Then insert 1 or 2 fingers into the vagina without placing the other hand on the abdomen yet, so as to avoid bringing any abdominal structures into play.[1,14] If patients are comfortable, then do a bimanual examination looking for masses, tenderness, and nodularity. Tenderness of the bladder helps confirm IC, while nodularity suggests endometriosis. More often than not, physical examination does not reveal the cause of pain.

Table 2. Rome II criteria for irritable bowel syndrome

At least 12 weeks (need not be consecutive) in the preceding 12 months of abdominal discomfort or pain that has 2 of the following 3 features
• It is relieved with defecation
• Onset is associated with a change in frequency of stool
• Onset is associated with a change in form or appearance of stool
The following symptoms are not essential for the diagnosis, but their presence increases diagnostic confidence and can be used to identify subgroups of irritable bowel syndrome
• Abnormal stool frequency (more than 3 per day or fewer than 3 per week)
• Abnormal stool form (lumpy, hard or loose, watery) in more than 25% of defecations
• Abnormal stool passage (straining, urgency, or feeling of incomplete evacuation) in more than 25% of defecations
• Passage of mucus in more than 25% of defecations
• Bloating or feeling of abdominal distention on more than 25% of days

Adapted from Thompson et al.[7]

Table 3. Questions to help identify interstitial cystitis

Do patients experience and are they bothered by the following?
• A strong need to urinate with little warning
• Urinating at less than 2-hour intervals
• Getting up at night to urinate
• Having pain or burning in the bladder

Adapted from O'Leary et al.[8]

Table 4. Questions to help ask about physical or sexual abuse, depression, and drug or alcohol abuse

"Although it can be difficult to talk about, some women who have chronic pelvic pain have been hurt or abused physically or sexually at some earlier time in their lives. I am wondering if anything like this has ever happened to you?"*
Two screening questions help identify depression†
• "Over the past 2 weeks have you felt down, depressed, or helpless?"
• "Over the past 2 weeks have you felt little interest or pleasure in doing things?"
Two screening questions help identify drug or alcohol abuse‡
• "In the past year, have you ever drunk or used drugs more than you meant to?"
• "Have you felt you wanted or needed to cut down on your drinking or drug use in the past year?"

*Used with permission from Bell and Colledge.[11]
†From Whooley et al.[12]
‡From Brown et al.[13]

In our case above, the patient's initial symptoms were consistent with IBS, but now the possibility of endometriosis and a bladder problem need to be considered. Considering a mutlifactorial cause of pain is reasonable because, for 25% to 50% of women with CPP, more than one diagnosis can be made.[2]

Investigations

Initial investigations include vaginal swabs, Pap smears, beta-human chorionic gonadotropin (ß-HCG) level testing, complete blood count, urinalysis, urine culture, and transvaginal ultrasound scans.[15,16] Further investigations should be guided by predominant symptoms, results of physical examination, and suspected diagnosis. The role of diagnostic laparoscopy in CPP is controversial because, for up to 40% of patients, no obvious etiology is found when it is done.[15] Endometriosis is diagnosed in one third of laparoscopies and adhesions in about one quarter.[17]

No single test can definitively diagnose IC. Begin with a series of urine cultures to rule out infection. Patients can use voiding diaries to help with diagnosis and to monitor response to treatment. Urine cytology and cystoscopy can be useful for excluding other disease. Some urologists find intravesical potassium sensitivity tests (sensitivity 73%, specificity 83%)[18] helpful in diagnosing IC.

Irritable bowel syndrome is diagnosed through history, but investigations might be needed to rule out other gastrointestinal causes, such as inflammatory bowel disease (erythrocyte sedimentation rate, C-reactive protein test, barium enema, endoscopy), celiac disease (antiendomysial antibody and antitissue transglutaminase antibody tests), and lactose intolerance. Less common gastrointestinal causes include fructose intolerance, microscopic colitis, chronic infection, bacterial overgrowth, and chronic pancreatitis.[19] Colonoscopy might be indicated, particularly if patients are older than 50 or have alarming symptoms, such as rectal bleeding, thin stools, or weight loss. Patients younger than 50 with no alarming symptoms or diarrhea do not require investigations.[20]

Treatment

The foundation of treatment is gaining women's trust and developing a strong patient-physician relationship. Unfortunately, there are very few randomized trials on treatment of CPP. In a Cochrane analysis of treatments for CPP, only medroxyprogesterone (50 mg once daily), counseling (after a reassuring ultrasound), a multidisciplinary approach, and lysis of deep adhesions were found to be of proven benefit.[5] A multidisciplinary approach for reducing pain included physiotherapy, psychotherapy, and attention to dietary and environmental factors.[21] Ultimately, treatment of CPP can focus on treating the pain itself, on treating the underlying disease, or on both.[1]

Treating the pain. Medication options are outlined in **Table 5.** Nonnarcotic analgesics, including acetaminophen, acetylsalicylic acid, and nonsteroidal anti-inflammatory drugs, are considered first-line therapy for pain relief in treatment of CPP (level III evidence).[16] Hormonal methods might be beneficial, especially if the pain has a cyclical pattern. Hormones can include oral contraceptive pills (level III evidence), continuous progestins (level I evidence), or gonadotropin-releasing hormone (GnRH) agonists (level I evidence).[2] There is a growing trend to treat CPP with GnRH agonists without doing a laparoscopy first.[2,16,22] The theory is that any pelvic condition that varies with menstrual cycles will respond to suppression of the hypothalamic-pituitary-gonadal axis. Conditions that have been shown to respond include endometriosis, IC, IBS, pelvic congestion syndrome, ovarian retention syndrome, and ovarian remnant syndrome.[2]

Due to the risk of osteoporosis and a medically induced menopausal state, GnRH agonists have previously been limited to 6 months' use, but with estrogen and progesterone "add back" therapy (in dosages similar to those for hormone replacement therapy), the duration of therapy can be extended (level I evidence).[23] It is recognized that many family physicians are not comfortable using these medications without a gynecologist's input. For refractory pain, options include tricyclic antidepressants (level III evidence), serotonin-norepinephrine reuptake inhibitors (level II evidence), and, as a last resort, opioids (level III evidence).[2]

Surgical management of CPP presents some challenges. Nerve ablations have limited therapeutic value and only help midline pain (level I evidence).[2] Hysterectomy with oophorectomy relieves pain for 60% to 95%[2] of women with CPP, but is less effective for women younger than 30 with no identified pelvic disease or with comorbid psychological problems (level II evidence).[3]

Treating the cause. If a particular condition is strongly suspected, treatment can be aimed at the underlying cause. For patients with endometriosis (unless they are actively trying to conceive, in which case surgical treatment is indicated), use of oral contraceptive pills, especially continuously, is often helpful.[23] This means taking 21 days of active pills back-to-back without an intervening break for menses. Patient satisfaction has been reported at 60% to 70%.[24]

Second-line medications, such as progestins, GnRH agonists, and danazol, have satisfaction rates of 80% to 90% among patients with endometriosis.[23,24] Progestins can be given orally, intramuscularly, or intrauterinely. Use of intramuscular progestin, however, has recently been cautioned as there is potential for irreversible bone mineral density loss. As with all medications, potential benefit must be balanced against potential risk. Danazol, a synthetic androgen, can be used for only up to 6 months owing to side effects. Laparoscopic cauterization of lesions can be therapeutic but is successful in

Table 5. Medical management options

CLASS OF MEDICATION	MEDICATION AND DOSE	IMPORTANT SIDE EFFECTS
Anticholinergics	Oxybutynin (Ditropan®) 2.5-5 mg by mouth 2-4 times daily, Ditropan XL® 5-30 mg by mouth once daily, tolterodine (Detrol®) 1-2 mg by mouth twice daily, Detrol LA® 2-4 mg by mouth once daily	Dizziness, drowsiness, blurred vision, dryness, urinary retention, tachycardia, headache
Antispasmodics	Pinaverium 50-100 mg by mouth 3 times daily with meals	Abdominal pain, nausea, constipation
	Clidinium/chlordiazepoxide (Librax®) 1-2 caplets by mouth 3-4 times daily, dicyclomine (Bentylol®) 20-40 mg by mouth 4 times daily, hyoscyamine 0.125-0.25 mg by mouth/sublingually every 4 h as required to a maximum of 1.5 mg/24 h	Headache, dryness, dizziness, drowsiness, urinary retention, gastrointestinal upset, tachycardia, constipation
Pituitary gonadotropin inhibitor	Danazol 600-800 mg once daily for a maximum of 6 mo	Androgenic features (hirsutism, weight gain, acne, hair growth, deepening voice, edema, reduced breast size, clitoralmegaly), menopausal symptoms (hot flashes, vaginal dryness, etc), lipid changes, liver disease, muscle cramps, breakthrough bleeding, need for barrier contraception
Gonadotropin-releasing hormone agonists	Leuprolide 3.75 mg every mo or 11.25 mg every 3 mo, naferelin 200 µg/d intranasally twice daily, goserelin 3.6 mg subcutaneously every mo or 10.8 mg subcutaneously every 3 mo for a maximum of 6 mo alone or longer with add-back therapy (estrogen ± progestogen, similar to hormone replacement therapy)	Androgenic features, menopausal symptoms, irregular bleeding, need for barrier contraception, loss of BMD
Progestins (oral, injectable, intrauterine)	Medroxyprogesterone (Provera®) 30-100 mg by mouth once daily	Abnormal uterine bleeding, breast tenderness, fluid retention, acne, nausea, headaches, depression
	Medroxyprogesterone (Depo-Provera®)150 mg intramuscularly every 3 mo	Bloating, weight gain, depression, irregular bleeding, amenorrhea, reduced BMD with long-term use (monitor BMD when >2 y use)
	Levonorgestrel-releasing intrauterine system (Mirena®) for 5 y, then insert new device	Breakthrough bleeding, amenorrhea, pain, perforation, expulsion, progestogen side effects from systemic absorption (rare)
Nonsteroidal anti-inflammatory drugs	Mefenamic acid 500 mg 3 times daily, naproxen (Naprosyn®) 250 mg 2-4 times daily or (Anaprox®) 275-550 mg twice daily, ibuprofen 400 mg every 4-6 h, sodium diclofenac 50 mg 3 times daily	Nausea, gastrointestinal upset, diarrhea, dizziness, headache, rashes, gastrointestinal bleeding
Oral contraceptive pills	≤35-ug pill used continuously (no break for period) or cyclically	Breakthrough bleeding, bloating, nausea, headache, breast tenderness
5-HT4 receptor partial agonist	Tegaserod 6 mg by mouth twice daily for 4-6 wk (maximum 3 mo)	Ischemic colitis (rare), diarrhea, headache, abdominal pain, nausea, dizziness

BMD—bone mineral density

only 45% to 85% of cases and has a pain recurrence rate of 40% to 60%.[23] Hysterectomy is typically reserved for intractable pain and is more effective when a bilateral oophorectomy is done also (60% recurrence rate with hysterectomy alone versus 10% with oophorectomy).[25] In premenopausal patients, removal of the ovaries necessitates a discussion about the need for hormone therapy that does not increase the recurrence rate of symptoms.[26] Adhesiolysis of adhesions has proven beneficial only for dense adhesions.[27]

Many treatments have been tried for IC; none have been curative. Initially, nonmedical treatments, such as

Table 6. Treatments for irritable bowel syndrome

SYMPTOM	POSSIBLE TREATMENT
Constipation	Increased fibre (including psyllium) Stool softeners (docusate sodium) Osmotic laxatives (lactulose, milk of magnesia, sorbital, polyethylene glycol) Tegaserod
Diarrhea	Antidiarrheal agents (loperamide, cholestyramine)
Flatulence	Alpha-d-galactosidase, simethicone
Spasmodic pain	Antispasmodic agents (pinaverium, diclomine, hyoscyamine, Librax®)

dietary modifications (elimination of suspected aggravators such as caffeine, alcohol, spicy or acidic foods, artificial sweeteners, and carbonated beverages) and stress management might be helpful. The only oral medication approved specifically for treatment of IC is sodium pentosan polysulfate, which could take up to 6 months to take effect. Other oral medications that can be tried include antihistamines, tricyclic antidepressants, and anticholinergics. The traditional treatment sometimes offered by urogynecologists is hydrodistention of the bladder. Intravesical instillations with dimethyl sulfoxide or bacille Calmette-Guérin have been shown to decrease pain.[1]

Treatment of suspected IBS usually starts with stress management and dietary modifications. Removing lactose, sorbitol (sugar substitute), caffeine, or fructose (found in fruit) from the diet might help. Avoiding chewing gum and smoking might lessen bloating and gas production. Peppermint oil, a component of many over-the-counter IBS medications, has been proven effective.[1] Otherwise treatment can be directed toward the predominant symptoms (**Table 6**).

Localized tender areas on the abdomen might respond to injections of long-acting topical anesthetic (trigger point injections).[2] Acupuncture could be considered also as an adjunctive therapy for CPP.[2] An overview of this approach to CPP is shown in **Figure 1**.

Case resolution

For the patient described above, initial management consisted of diagnosing and treating the underlying cause. A pelvic examination with swabs and cultures, complete blood count, urinalysis and culture, and abdominal-pelvic ultrasound were done; all results were normal. To manage her IBS, the constipation was treated with tegaserod, which helped with her bowel movements but provided only a modest reduction in pain. To address suspected endometriosis, she was given continuous low-dose oral contraceptive pills that eliminated her periods and the cyclical exacerbation of her pain. Her urinary symptoms abated as a result. She was still about half as uncomfortable as she was before treatment, so the treatment plan focused on pain control (using nonsteroidal anti-inflammatory drugs) and addressing psychosocial issues. She was beginning to feel depressed because of the continuous pain, and when asked about a history of abuse, she began to discuss her troubled teenage years. She had counseling and learned relaxation techniques, and improved enough that the pain no longer interfered with her life.

EDITOR'S KEY POINTS

- Chronic pelvic pain (CPP) is a complex condition. It is not a diagnosis, but a description of nonmenstrual pain severe enough to cause functional disability. An estimated 4% to 20% of women 15 to 50 years old suffer from CPP at some time in their lives.
- There are many possible causes of CPP, but the 4 most common are endometriosis, adhesions, interstitial cystitis, and irritable bowel syndrome.
- The same woman can have more than one condition, and treatment can be directed at the probable cause, at the pain, or at both.
- Given the complex nature of CPP and the inevitable severe psychological fall-out, an overlooked but powerful component of care is the trusting relationship many women have with their family doctors.

POINTS DE REPÈRE DU RÉDACTEUR

- La douleur pelvienne chronique (DCP) est une condition complexe. Ce n'est pas un diagnostic, mais une description de douleurs non menstruelles suffisamment intenses pour entraîner une incapacité fonctionnelle. On estime qu'entre 4 et 20% des femmes de 15 à 50 ans souffrent de DPC à un moment ou l'autre de leur vie.
- Il y a plusieurs causes possibles à la DPC, mais les plus fréquentes sont l'endométriose, les adhérences, la cystite interstitielle et le syndrome du côlon irritable.
- Une femme peut avoir plus d'une condition et on peut choisir de traiter la cause probable, la douleur ou les deux.
- Vu la nature complexe de la DPC et les graves conséquences psychologiques qu'elle entraîne inévitablement, on ne doit pas oublier que la relation de confiance que plusieurs femmes entretiennent avec leur médecin de famille est une composante majeure du traitement.

Conclusion

While CPP can be a frustrating condition for both patients and families, physicians can use a systematic approach to managing the disorder. After looking for the most common causes and ruling out serious disease, a 2-pronged approach of treating either the underlying condition or the pain itself (or both) is effective. Family physicians are in an ideal position to treat CPP as they

Figure 1. Overview of an approach for managing chronic pelvic pain

HISTORY

- Pain: timing, what aggravates and relieves it, dysparunia (initial or deep)
- Previous evaluations, medications and therapies tried, and response to them
- Screen for depression
- Quality of life, sexual dysfunction
- Medical history: obstetric, sexual, sexually transmitted diseases or pelvic inflammatory disease, birth control methods, surgeries, injuries
- History of physical or sexual abuse
- Urinary or bowel symptoms
- Family history, especially of endometriosis or irritable bowel syndrome

⬇

PHYSICAL EXAMINATION

- Abdominal
- Musculoskeletal, central nervous system (if indicated)
- Pelvic

⬇

INVESTIGATIONS

- Pap smear and swabs
- Testing for beta-human chorionic gonadotropin, complete blood count
- Urinalysis and culture
- Transvaginal pelvic ultrasound
- Laparoscopy (optional)

⬇

TREATMENT

If a specific diagnosis is made, treat according to the condition, otherwise do as follows.

- Use a multidisciplinary approach (medical, surgical, physiotherapy, and psychotherapy)
- First-line medications are acetaminophen, acetylsalicylic acid, and nonsteroidal anti-inflammatory drugs
- Second-line medications (if pain has a cyclic component) are oral contraceptive pills, continuous progestins, and gonadotropin-releasing hormone analogues
- Third-line medications are tricyclic antidepressants, serotonin-norepinephrine reuptake inhibitors, opioids
- Trigger point injections
- Acupuncture
- Midline dysmenorrhea: presacral neurectomy
- Refractory pain: hysterectomy and oophorectomy

are able to offer and coordinate a multifaceted approach to care.

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